



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2008-0616; Directorate Identifier 2007-NM-353-AD; Amendment 39-17833; AD 2014-08-09]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 767 airplanes. This AD was prompted by reports of two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. This AD requires revising the maintenance program to incorporate a revision to the Airworthiness Limitations section of the maintenance planning data document. We are issuing this AD to detect and correct failure of the engine fuel suction feed capability of the fuel system, which could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5280; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2008-0616; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Sue Lucier, Aerospace Engineer, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6438; fax: 425-917-6590; email: [suzanne.lucier@faa.gov](mailto:suzanne.lucier@faa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Discussion**

We issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 767 airplanes. The SNPRM published in the Federal Register on August 1, 2013 (78 FR 46532). We preceded the SNPRM with a notice of proposed rulemaking (NPRM) that

published in the Federal Register on June 6, 2008 (73 FR 32252). The NPRM proposed to require repetitive operational tests of the engine fuel suction feed of the fuel system, and other related testing if necessary. The NPRM was prompted by reports of two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. Although the fuel system on Model 767 airplanes differs from the Model 737 with respect to the engine fuel feed system design, service data of transport category airplanes indicates that multi-engine flameouts have generally resulted from a common cause, such as fuel mismanagement, crew action that inadvertently shut off the fuel supply to the engines, exposure to common environmental conditions, or engine deterioration on all engines of the same type. Successful in-flight restart of the engines is dependent on adequate fuel being supplied to the engines, solely through engine fuel suction feed. Deterioration of the fuel plumbing system can lead to line (vacuum) losses, reducing the engine fuel suction feed capability; therefore, directed maintenance is necessary to ensure this system is functioning correctly in order to maintain continued safe flight of the airplane. The SNPRM proposed to revise the maintenance program to incorporate a revision to the Airworthiness Limitations section of the maintenance planning data (MPD) document, and to remove airplanes from the applicability. We are issuing this AD to detect and correct failure of the engine fuel suction feed capability of the fuel system, which could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the SNPRM (78 FR 46532, August 1, 2013) and the FAA's response to each comment.

**Concurrence with the SNPRM (78 FR 46532, August 1, 2013)**

Boeing stated that it concurs with the content of the SNPRM (78 FR 46532, August 1, 2013).

**Request to Include Compliance Time for Initial Operational Test**

United Airlines (UAL) and UPS asked that we specify the compliance time for the initial operational test identified in the maintenance program. UAL and UPS presumed that the initial test is within 7,500 flight hours or 3 years, whichever occurs first “after the effective date of the AD.”

We acknowledge the commenters’ request. The compliance time for the initial operational test is based on the date the airworthiness limitation (AWL) is incorporated into the maintenance program. It would be conservative to use the effective date of this AD for accomplishing the initial test; however, this AD allows 90 days for the AWL to be incorporated. As specified in paragraph (g) of this AD, the initial test is to be done within 7,500 flight hours or 3 years, whichever occurs first after incorporation of the AWL into the maintenance program. We have not revised this final rule in this regard.

**Request to Include Latest MPD Revision**

UAL asked that we include the latest revision of Section 9 of the Boeing 767 MPD in the SNPRM (78 FR 46532, August 1, 2013). UAL stated that the latest revision is April 2013.

We agree that this AD should refer to the latest MPD revision. Boeing has issued Revisions April 2013, August 2013, September 2013, and November 2013 of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, of the Boeing 767 MPD Document. We have added these revisions to paragraph (g) of this final rule as additional service information that may be used to accomplish the required actions.

### **Request to Include Credit for Initial Test Using Existing Inspection Programs**

UPS asked that we give credit for previous accomplishment of the initial operational test. UPS stated that it has already incorporated the initial test as an existing scheduled maintenance task at its “1C interval (24 months or 6,000 flight hours, whichever occurs first), in accordance with MSM SDN 28-22-00-5GT.” UPS added that the interval to incorporate AWL No. 28-AWL-101 is 3 years or 7,500 flight hours, whichever occurs first. UPS noted that the SNPRM (78 FR 46532, August 1, 2013) fails to provide an option to take credit for the last accomplishment of the test.

We do not agree with the commenter’s request to give credit for previous accomplishment of testing of the suction feed capability under the current maintenance program. The commenter did not provide sufficient information with their comment to allow us to determine that their previous tests had the same level of effectiveness as the AWL-required test. In addition, the repetitive interval in the AWL is 3 years or 7,500 flight hours, and the initial inspection is to be done no later than 3 years or 7,500 flight hours after the AWL is incorporated into the maintenance program. The commenter stated that it currently performs its scheduled maintenance task every 24 months or 6,000 flight hours, whichever occurs first. If the commenter performs the next scheduled suction feed test using the procedures required by the AWL, without changing their currently planned time for the next inspection, it would be in compliance with the new AWL and credit for a previous test would not be necessary. Under the provisions of paragraph (i) of this AD, we may consider requests for approval of an alternative method of compliance (AMOC) if sufficient data are submitted to substantiate that the current test method can be used in place of the test method required by the AWL, and provides an acceptable level of safety. We have made no change to this final rule in this regard.

### **Request to Change Applicability Language**

UPS asked that we change the applicability language specified in paragraph (c) of the SNPRM (78 FR 46532, August 1, 2013), which specifies the affected models have

received a certificate of airworthiness or foreign export certificate of airworthiness before November 2, 2012. UPS recommended that the language be changed to capture any Model 767 airplanes subject to the requirements of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, including AWL No. 28-AWL-101, Engine Fuel Suction Feed Operational Test, of Section D., Airworthiness Limitations—Systems, as of November 2, 2012 (the original publication date) of the Boeing 767 MPD Document. UPS stated that the applicability range specified in paragraph (c) of the SNPRM does not include eight additional Model 767-300F airplanes currently operated by UPS that were delivered after November 2, 2012.

We do not agree to change the applicability language to capture Model 767 airplanes per the commenter's request. The intent of the cutoff date of November 2, 2012, as specified in the applicability of this AD, is to require a common operational test to apply to both the in-production and previously delivered airplanes. Production airplanes delivered after November 2, 2012, already receive a maintenance program that includes this operational test. Operators are required to comply with the AWLs in the documents provided with a new airplane. This AD would capture airplanes outside that group. However, we have included a clarification in paragraph (c) of this final rule to specify that the AD applies to airplanes with an original airworthiness certificate or original export certificate of airworthiness issued before November 2, 2012.

#### **Clarification of Paragraph (h) of this AD**

We have revised paragraph (h) of this AD by removing the reference to the critical design configuration control limitations (CDCCLs). AWL No. 28-AWL-101 is not a CDCCL.

#### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the

changes described previously. We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

### **Costs of Compliance**

We estimate that this AD affects 406 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Revise airworthiness limitations	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$34,510

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2014-08-09 **The Boeing Company**: Amendment 39-17833 ; Docket No. FAA-2008-0616; Directorate Identifier 2007-NM-353-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].



**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 767-200, -300, -300F, and -400ER series airplanes, certificated in any category, that have received an original airworthiness certificate or original export certificate of airworthiness issued before November 2, 2012.

Note 1 to paragraph (c) of this AD: November 2, 2012, is the original publication date of Revision October 2012 of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, including AWL No. 28-AWL-101, Engine Fuel Suction Feed Operational Test, of the Boeing 767 Maintenance Planning Data (MPD) Document.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 2800, Aircraft Fuel System.

**(e) Unsafe Condition**

This AD results from reports of two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. We are issuing this AD to detect and correct failure of the engine fuel suction feed capability of the fuel system, which could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Maintenance Program Revision**

Within 90 days after the effective date of this AD: Revise the maintenance program to incorporate AWL No. 28-AWL-101, Engine Fuel Suction Feed Operational

Test, of Section D., Airworthiness Limitations—Systems, of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, Revision October 2012, January 2013, April 2013, August 2013, September 2013, or November 2013 of the Boeing 767 MPD Document. The initial compliance time for the test is within 7,500 flight hours or 3 years, whichever occurs first after incorporation of the AWL into the maintenance program.

**(h) No Alternative Actions or Intervals**

After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., tests) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i) of this AD.

**(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to:

[9-ANM-Seattle-ACO-AMOC-Requests@faa.gov](mailto:9-ANM-Seattle-ACO-AMOC-Requests@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

For more information about this AD, contact Sue Lucier, Aerospace Engineer, Propulsion Branch, ANM-140S, 1601 Lind Avenue SW., Renton, WA 98057-3352; phone: 425-917-6438; fax: 425-917-6590; email: [suzanne.lucier@faa.gov](mailto:suzanne.lucier@faa.gov).

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, Revision October 2012, of the Boeing 767 Maintenance Planning Data (MPD) Document.

(ii) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, Revision January 2013, of the Boeing 767 MPD Document.

(iii) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, Revision April 2013, of the Boeing 767 MPD Document.

(iv) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, Revision August 2013, of the Boeing 767 MPD Document.

(v) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, Revision September 2013, of the Boeing 767 MPD Document.

(vi) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622T001-9, Revision November 2013, of the Boeing 767 MPD Document.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle,

WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5280; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on April 14, 2014.

Jeffrey E. Duven,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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